

CP Algebra 2

Properties of Exponents

NAME _____

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Simplify

$$(2x^3)(3y)(-x^2y^3)$$

$$(5x^4)^2(3x^5)$$

$$\left(\frac{3}{4}m^3\right)(4m^2)^2$$

$$(11g^{-2})\left(\frac{2}{3}g^{-1}\right)^{-2}$$

$$(7d)^{-3}(14cd^2)$$

$$x^2y \cdot 2xy^2 \cdot 5x^{-5}y^{-3}$$

$$\frac{3x^2y^{-3}}{(6xy^2)^3}$$

$$\frac{3t^{-7}s^{11}}{15t^{-3}s^{14}}$$

$$\left(\frac{6x^2}{4y}\right)^{-3}\left(\frac{x^5}{x^{-2}}\right)$$

$$(2x^{-\frac{1}{2}}z^4)(3x^{\frac{1}{3}}y^{-2}z^{-7})$$

$$\sqrt[3]{3x^4} * \sqrt[2]{3x}$$

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Solve for x:

$$1 - (3x + 2)^{\frac{3}{2}} = -26$$

$$\frac{(2x^3)^5}{8x^8} - 80 = 432$$

$$2\sqrt[3]{27x^2} - 14 = 40$$

$$5(3x - 2)^{\frac{5}{2}} + 34 = 194$$

A power function has the form $y = ax^p$, where a and p are integers such that $a < 0$, $p < 0$ and p is odd. Sketch a graph of this function.

